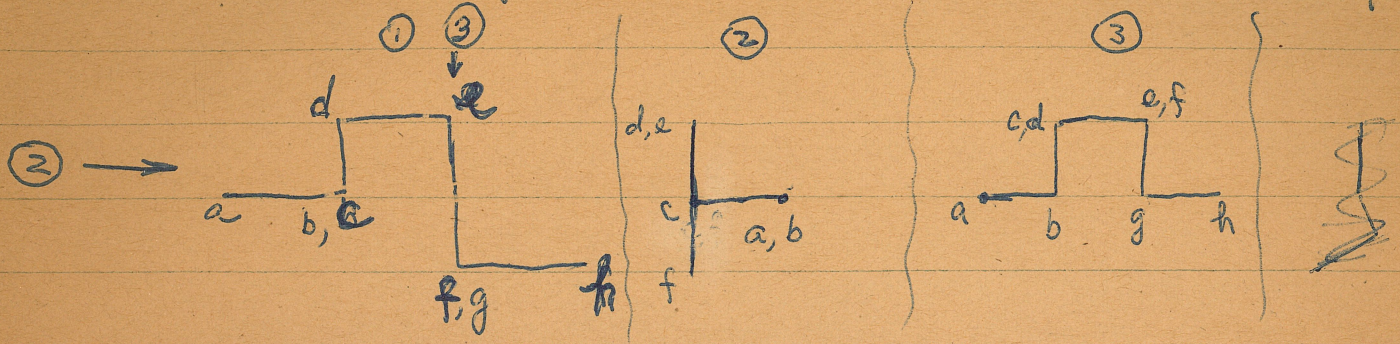
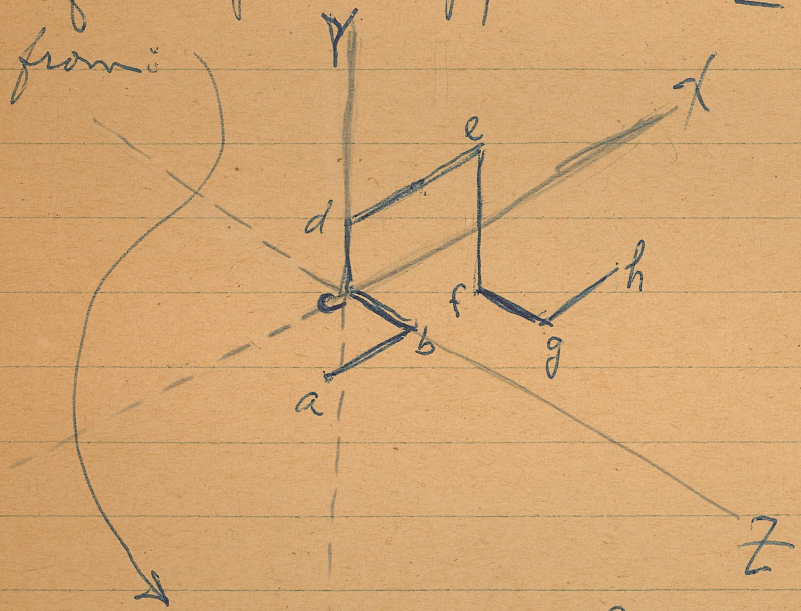
ROD GAPS - MULTIPLE

Obtain a reflection from each change in vertical configuration, only, or from an extremity

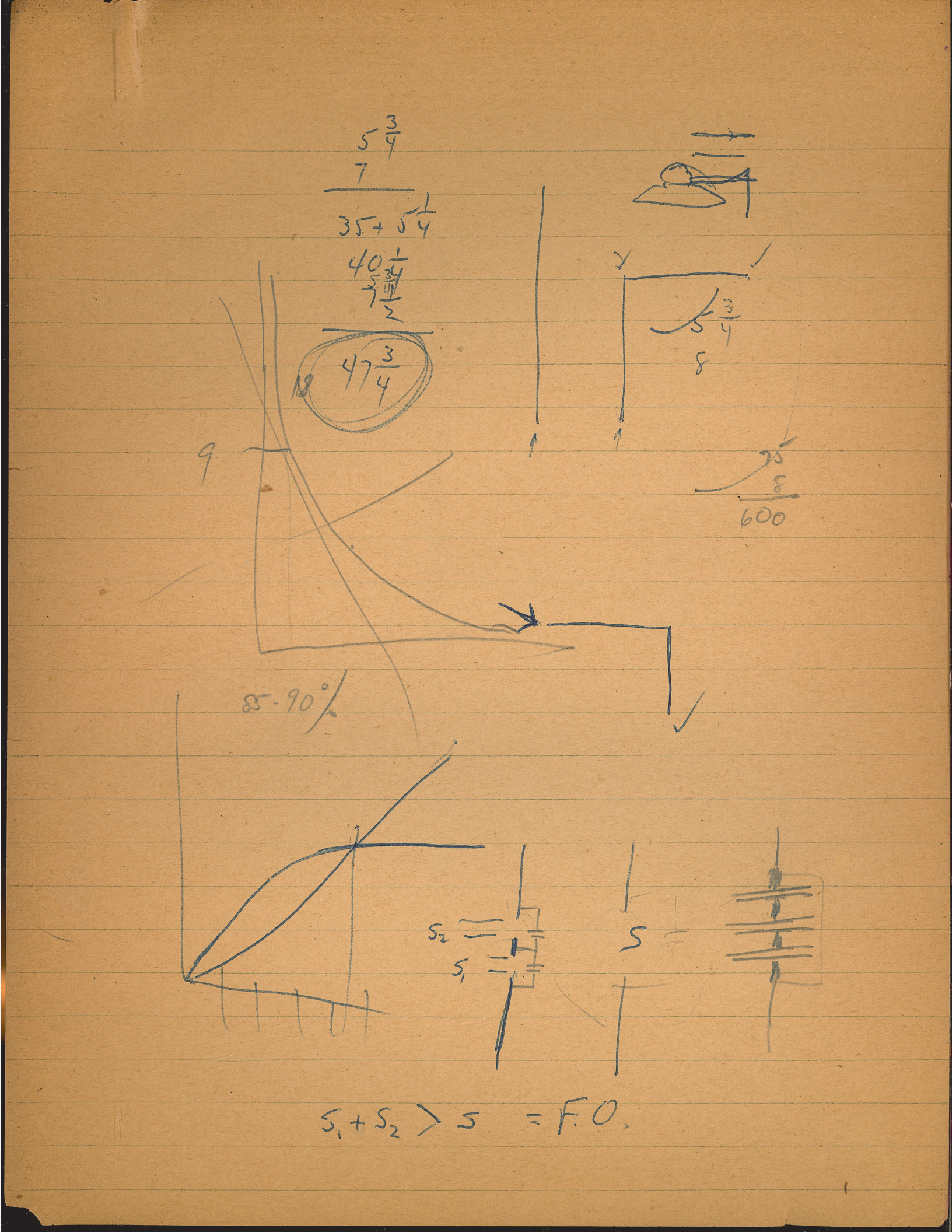


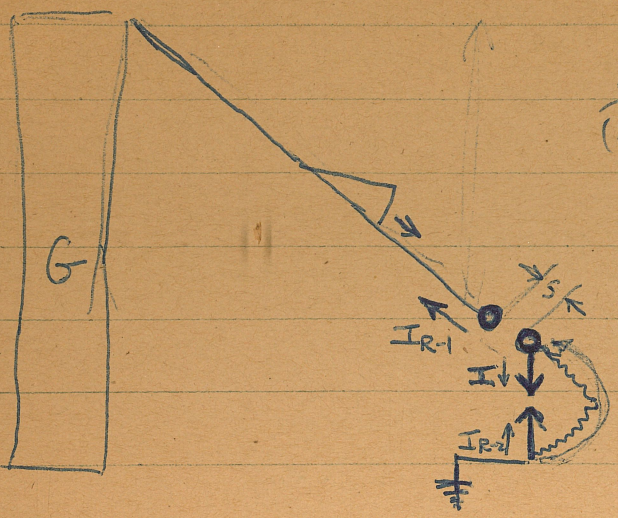
if surge is applied at a, would get reflections from:



c, d, e, f, h

none from b, g


5 3/4
7
35 + 5 1/4
40
47 3/4
18
9
85-90%
600
S_2
S_1
S
$S_1 + S_2 > S$ = F.O.



$\frac{10^3}{(10)^3}$

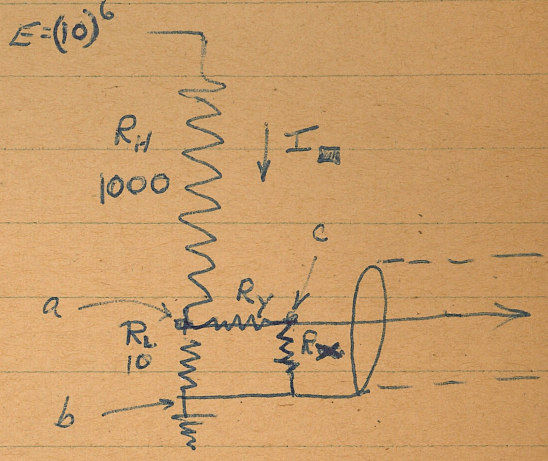
$\frac{1000'}{\mu s}$

$\frac{1ft}{(10)^{-3}\mu s} = \frac{1ft}{.001\mu s}$

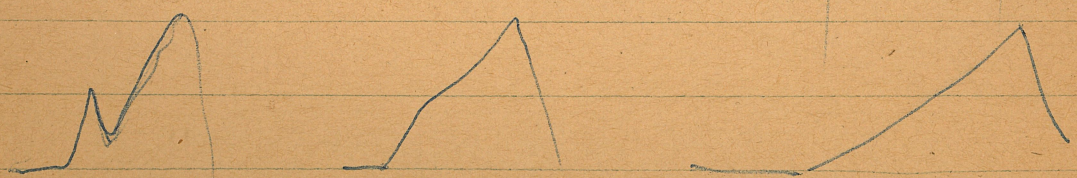
$\frac{2000\,(or\,t}{20\,t^2}$

$\frac{10^6}{10^3} = 10^3$

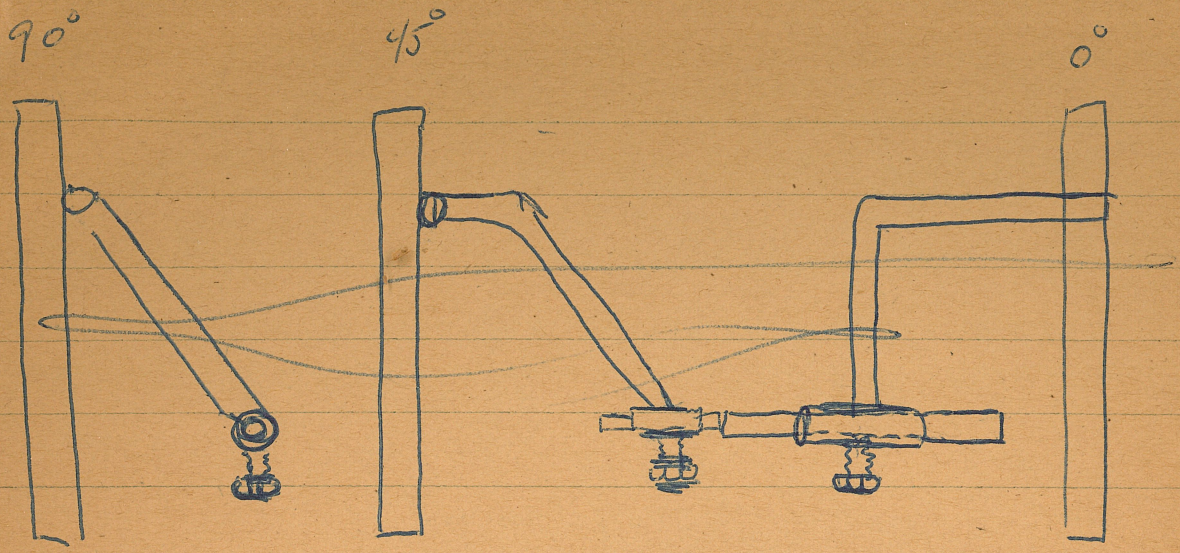
$\frac{10^6}{10^3}$

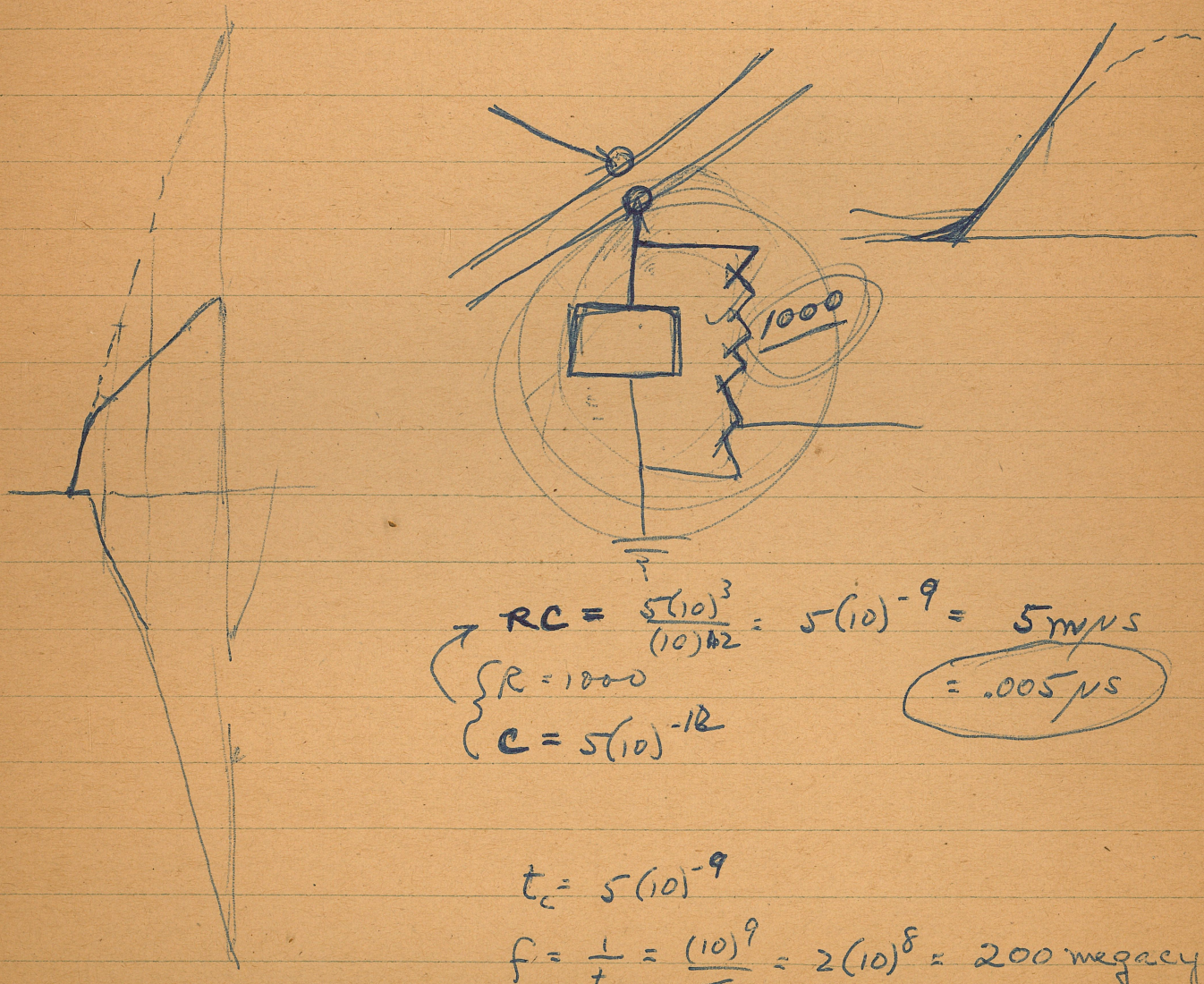


$\frac{(R_x+R_y)R_L}{R_x+R_y+R_L}$	R_y	R_x	R_H	R_L	$I_{\blacksquare}$	E Meas.	E_{ab} (%)	E_{cb} (%)	I_{Rx}
	0	∞	1000	10	$(10)^3$	1%	1		
	0	20	"	20	"	1%	1		
	10	10	"	20	$\frac{1}{2}(10)^3$	$\frac{1}{2}$%	1	$\frac{1}{2}$	$\frac{(10)^3}{2}$
10	1000	1000	"	10	"		1	$\frac{1}{2}$	1



"S" large "S" small "S" 0





$RC = \frac{5(10)^3}{(10)^{12}} = 5(10)^{-9} = 5\ m\mu s$

$= .005\ \mu s$

$\begin{cases} R = 1000 \\ C = 5(10)^{-12} \end{cases}$

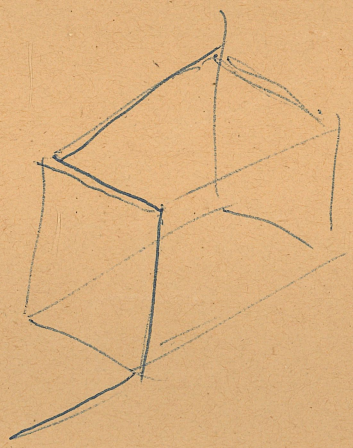
$t_c = 5(10)^{-9}$

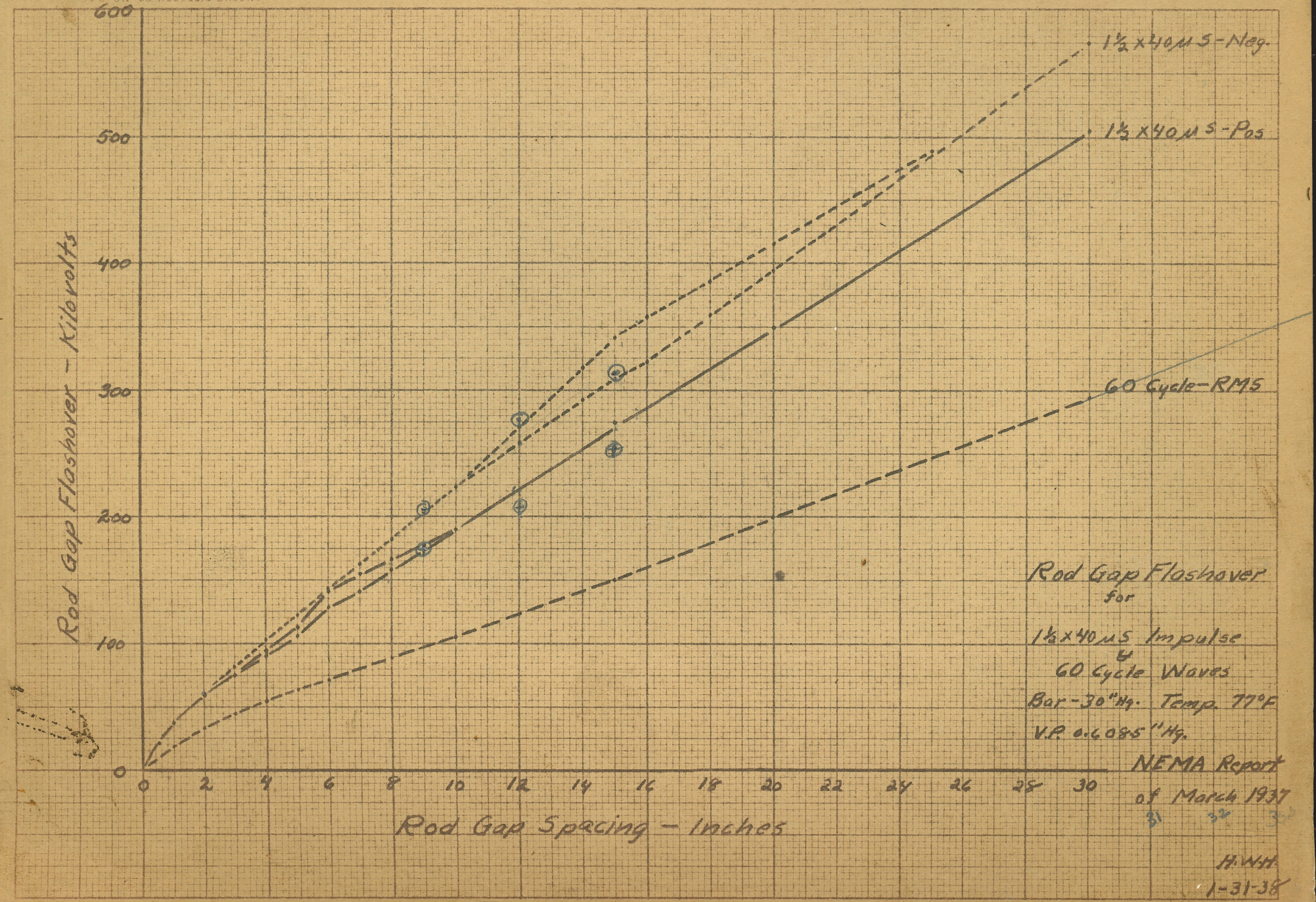
$f = \frac{1}{t_c} = \frac{(10)^9}{5} = 2(10)^8 = 200$ megacycles

$t_c = RC$

$t_c = 10^3 \times 5 \times 10^{-12} = 5 \times 10^{-9}$

$f = \frac{1}{t_c} = f = \frac{1}{5 \times 10^{-9}} = .2 \times 10^9 = 2 \times 10^8 = 200 \times 10^6$ or 200 megacycles





Rod Gap Flashover
for
1½ x 40 μS Impulse
&
60 Cycle Waves
Bar - 30" Hg. Temp. 77°F
V.P. 0.6085" Hg.

NEMA Report
of March 1937

31 32 3

H.W.H.
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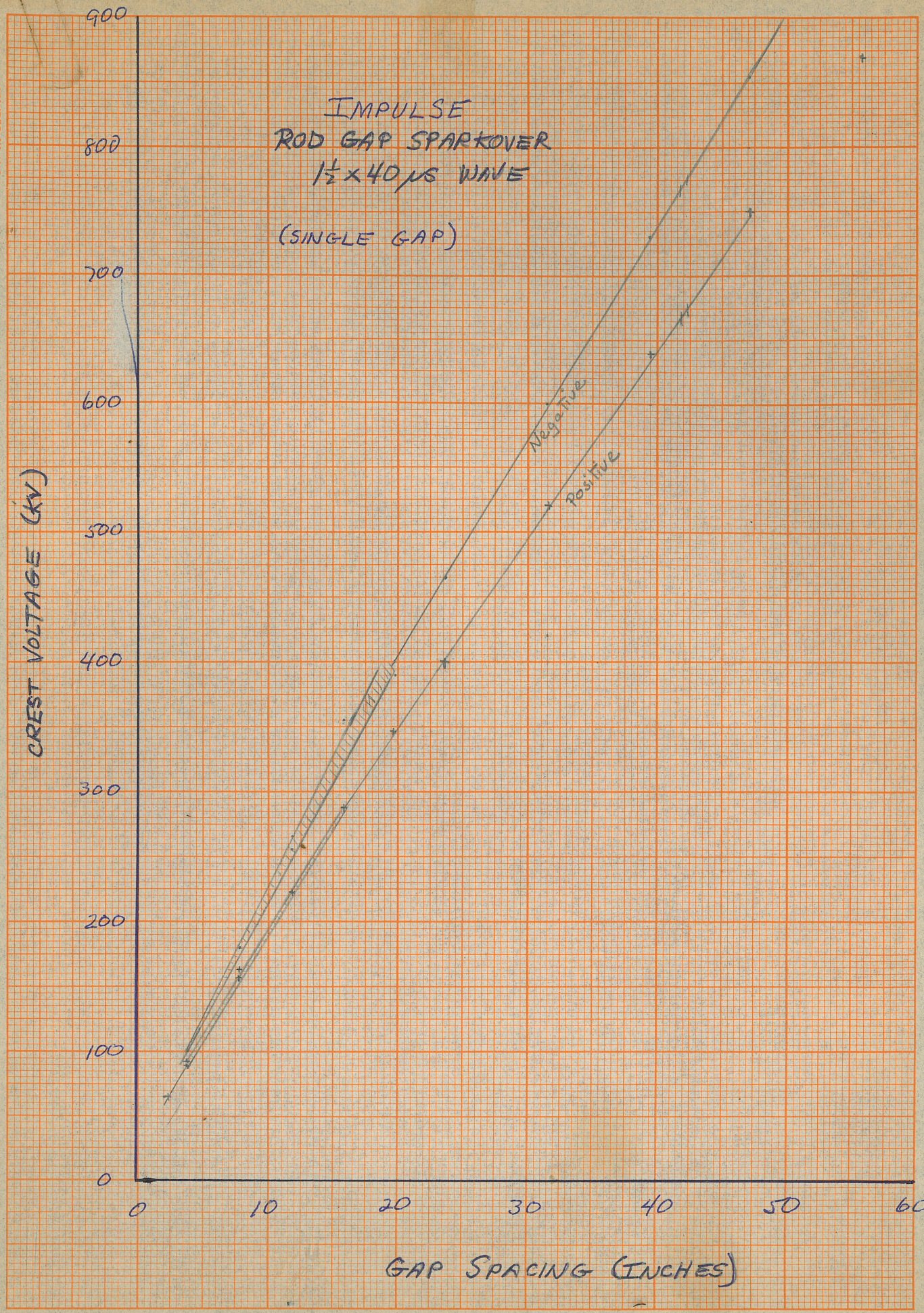

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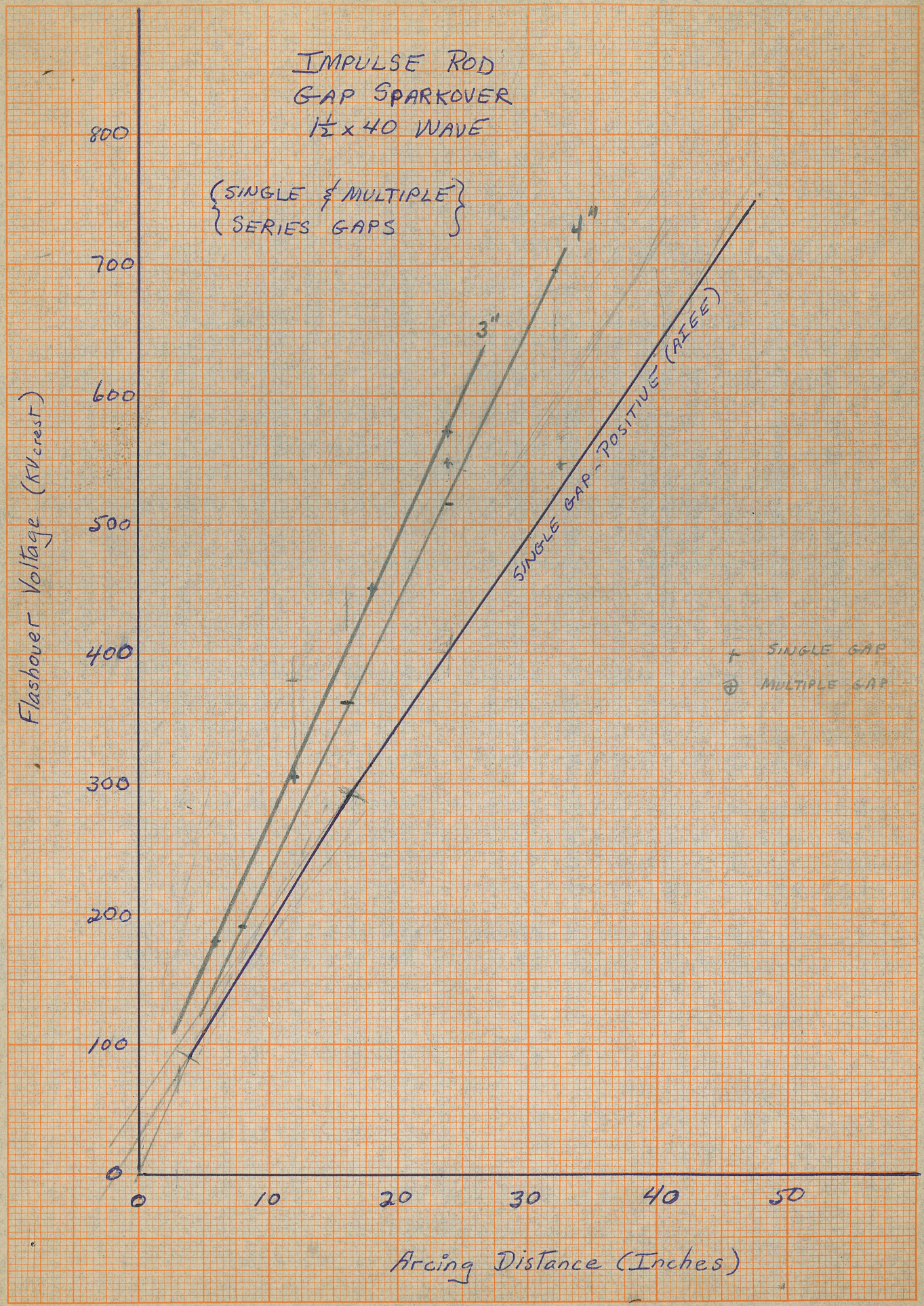
IMPULSE ROD GAP SPARKOVER 1½ x 40 WAVE

{SINGLE & MULTIPLE} SERIES GAPS



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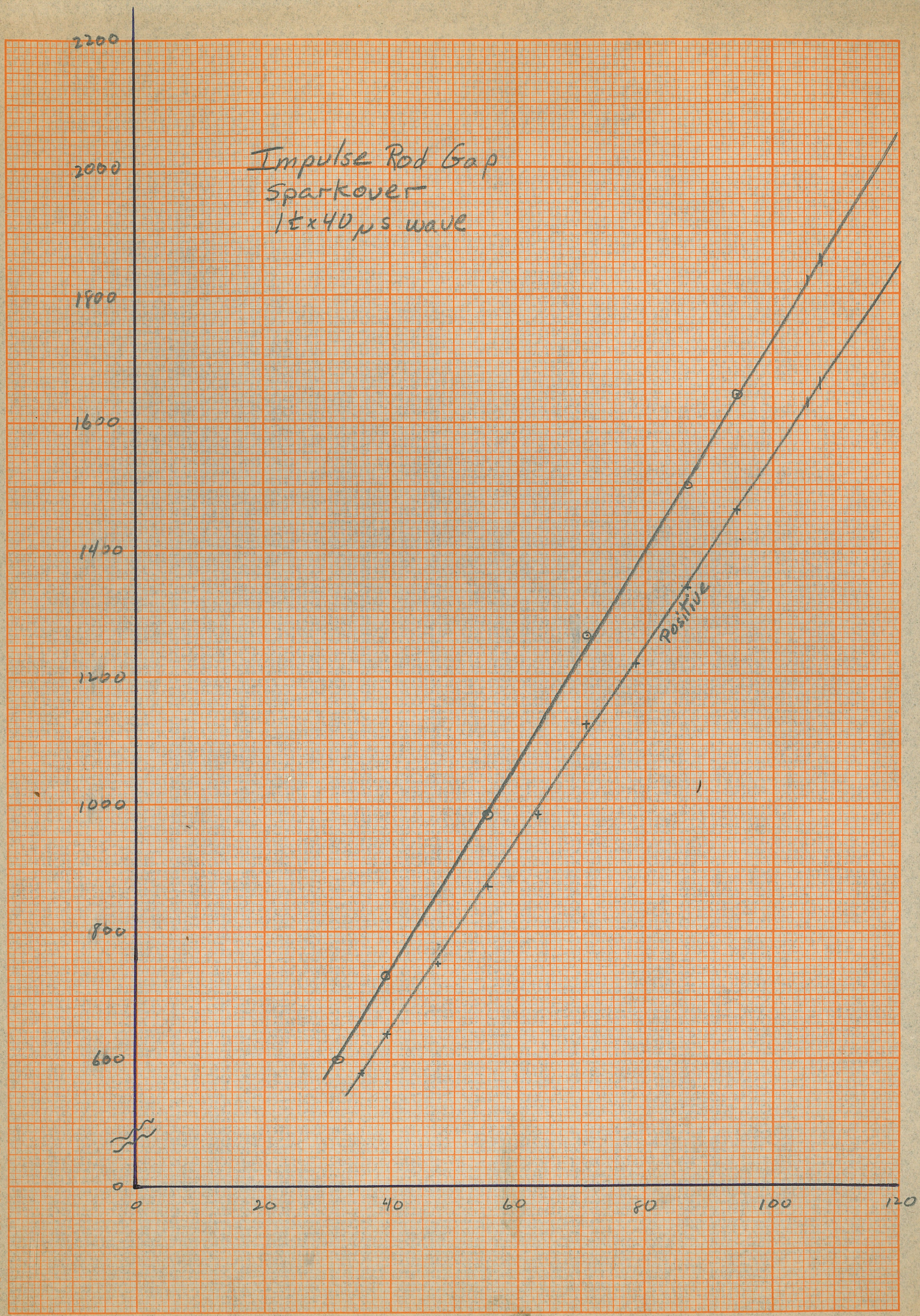
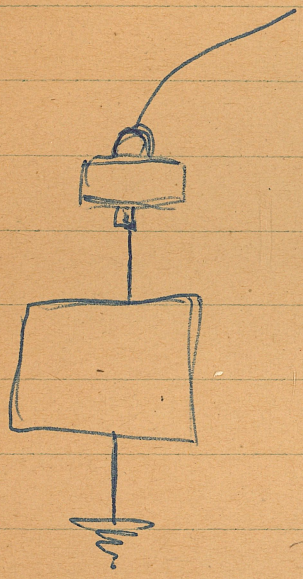
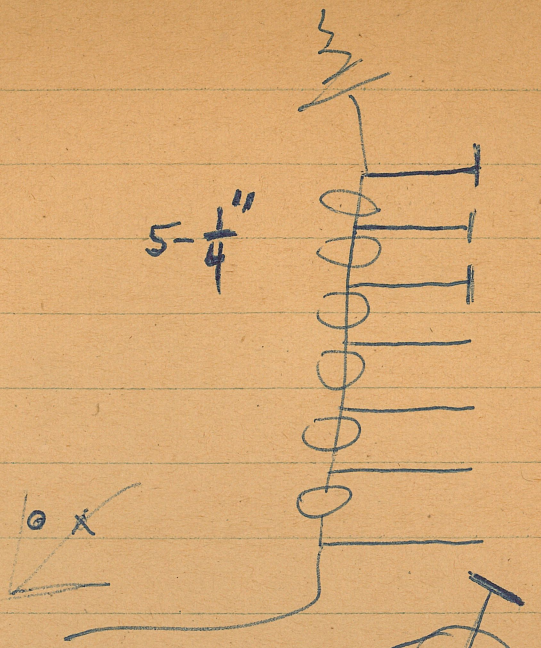


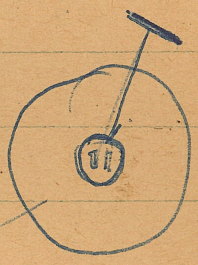
e = C

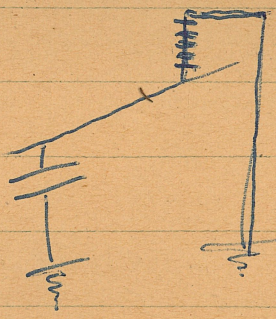
F.O. = L

5-$\frac{1}{4}$"



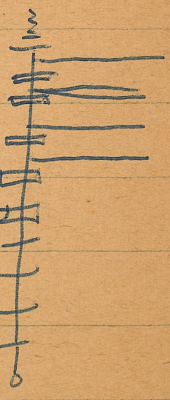






547
530
17 = 3.2%
530

545 400 = 145/400

30'
12
60
30
15 | 360 | 24
30 x
96
10,000
50
4800

3 6.25%
4 | 145
12
25
24
10
8
20